

**ACACIA CAERULESCENS, A NEW SPECIES OF ACACIA SECTION
PHYLLODINEAE FROM VICTORIA**

by

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ABSTRACT

Maslin, B. R. & Court, A. B. *Acacia caerulescens*, a new species of *Acacia* section *Phyllodineae* from Victoria. *Muelleria* 7(1): 131–134 (1989). — *Acacia caerulescens*, a new species referable to *Acacia* section *Phyllodineae* DC. and allied to *A. obliquinervia* Tind., is described and illustrated. It is endemic in eastern Victoria (Buchan–Lakes Entrance district) where it is restricted to limestone soils.

TAXONOMY

***Acacia caerulescens* Maslin & Court, sp. nov.**

Acacia obliquinerviae affinis a qua imprimis differt phyllodiis 4–8 cm longis, (1–)1.5–3 cm latis, 1:w = 2–3.5(–6), glaucissimis, costa saepe nec valde excentrica, glande 5–25 mm supra pulvinum posita versus costam per nervo tenui obliquo conjuncta, pedunculis c. 6 mm longis aliquantum gracilibus, capitalis in alabastro globosis.

Allied to *A. obliquinervia* but differing principally in the following ways. Phyllodes 4–8 cm long, (1–)1.5–3 cm wide, 1:w = 2–3.5(–6), very glaucous, midrib often not markedly excentric. Gland 5–25 mm above the pulvinus and connected to midrib by a fine, oblique nerve. Peduncles c. 6 mm long, rather slender. Heads globular when in bud.

TYPUS: Beside Wulgulmerang–Buchan road, c. 4.3 km from Buchan by road, Gippsland, Victoria, 10 Nov. 1985, *A.B. Court* CBG 8506135 (**HOLOTYPE:** CBG; **ISOTYPE:** AD, B, BRI, G, K, L, NSW, NY, MEL, PERTH, US).

Tree to 10–15 m tall, often \pm pyramidal. *Branches* terete but very slightly angled at extremities, finely and obscurely ribbed, at least the youngest shoots slightly to moderately pruinose. *Phyllodes* slightly oblique, obovate to oblanceolate or elliptic to narrowly elliptic, rather abruptly narrowed into an obtuse apex, 4–8 cm long, (1–)1.5–3 cm wide, 1:w = 2–3.5(–6), thinly coriaceous, straight or frequently slightly recurved near the somewhat narrowed base, glabrous, glaucous; midrib apparent, central or slightly to markedly excentric (i.e. situated closer to the upper margin), yellowish to light brown; lateral nerves not pronounced, loosely anastomosing; marginal nerves yellow to light brown; pulvinus 3–5 mm long, wrinkled and brown to dark brown when dry. *Gland* solitary, 5–25 mm above the pulvinus and connected to it by a fine oblique nerve which is concurrent with the midrib for a short distance, and often branched at its point of divergence with one branch extending to the gland and the other rejoining the midrib. *Racemes* axillary and terminal, often arranged in panicles which may reach 9 cm long; raceme axes with 2–8 flower-heads, slightly flexuose, glabrous, variably pruinose, base ebracteate. *Peduncles* c. 6 mm long, rather slender (c. 0.5 mm wide when dry), glabrous, variably pruinose, with 2, basal, triangular, glabrous bracts (?homologous to stipules) <0.5 mm long, an extremely reduced phyllode often present between the bracts. *Flower-heads* globular, (15–)20–30-flowered, lemon yellow, lightly scented. Bracteoles spatulate to sub-peltate; claws linear but slightly dilated towards their fimbriolate apices, c. 1 mm long (equalling calyx); laminae circular to triangular-ovate, apiculate, c. 0.5 mm long, glabrous, brown. *Flowers* 5-merous. *Calyx* gamosepalous, $\frac{2}{3}$ length of corolla, very shortly divided (for c. $\frac{1}{8}$ its length or less) into \pm broadly triangular, slightly inflexed,

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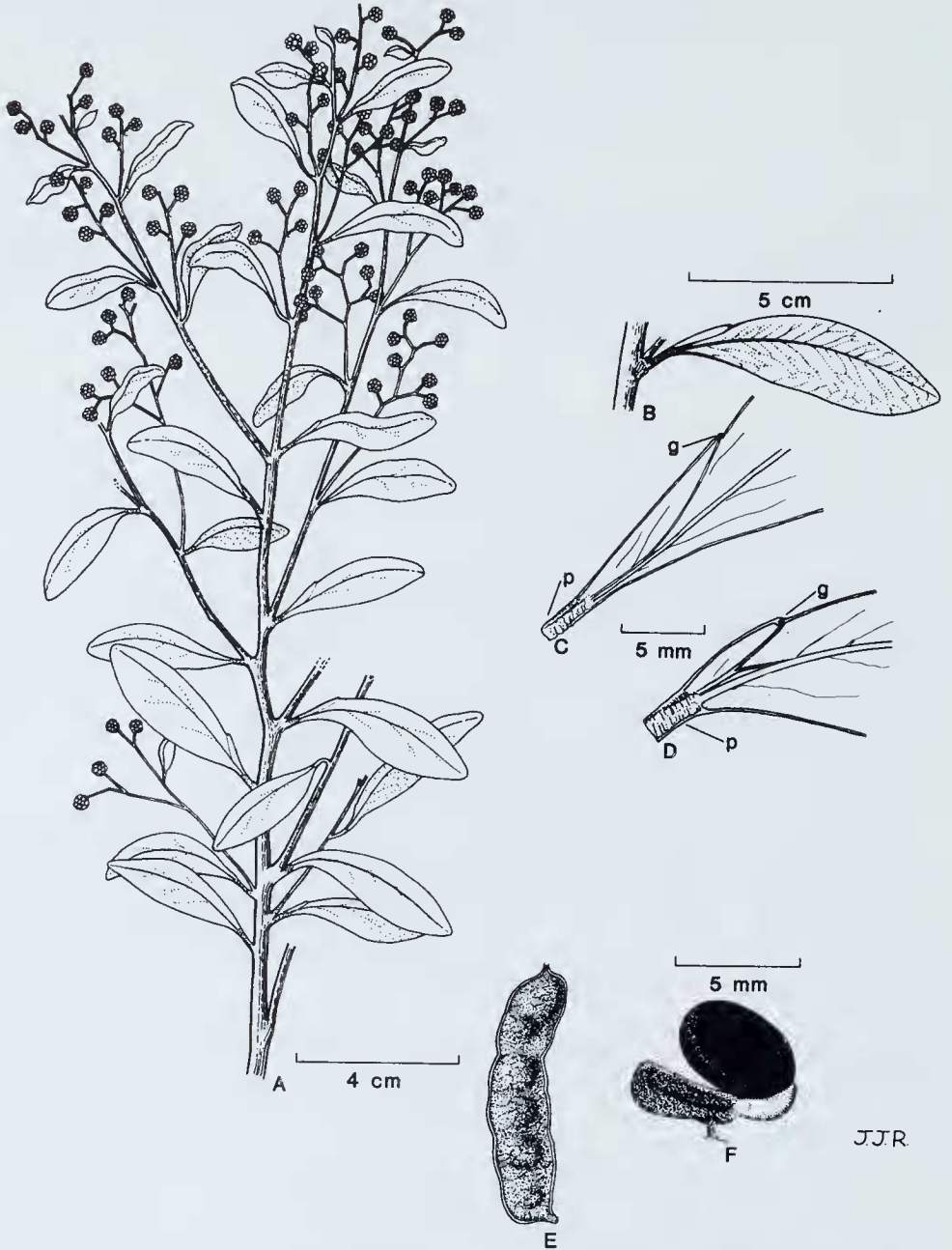


Fig. 1. *Acacia caerulescens* Maslin & Court. a — Portion of branch. b — Phyllode. c & d — Base of phyllode showing fine oblique nerve extending from gland (g) to pulvinus (p), note in D that this nerve bifurcates. e — Legume. f — Seed. a from A.B. Court CBG 8506135 (PERTH isotype); b & d from MEL 615165; c from MEL 615166; e-f from J. Kenrick s.n. (PERTH 00721689).

slightly keeled lobes. *Petals* 2.2–2.5 mm long, glabrous. Legumes oblong to narrowly oblong, 5–12 cm long, 1.4–2.2 cm wide, flat but rounded over seeds along midline of legume, slightly constricted between the seeds although occasional deep constrictions occur on some legumes, chartaceous, straight to very slightly curved, transversely loosely reticulate, glabrous, light- to medium-brown or purplish brown, pruinose (pruinosity patchy), stipitate, marginal nerve quite prominent but scarcely thickened. *Seeds* longitudinal or more usually longitudinally oblique in the legume, ellipsoid,

5–6 mm long, 3.5–4 mm wide, compressed (c. 2 mm thick), dull, black; pleurogram narrowed but open towards the hilum, not particularly prominent; areole 4 mm long, 2 mm wide; funicle at first straight, c. 2 mm long, normal to margin and closely appressed to inner wall of legume, then abruptly thickened, light red-brown and once-folded below the yellow, more or less clavate aril, aril constricted at its junction with the funicle.

OTHER SPECIMENS EXAMINED:

Victoria — Stony Creek crossing of the Princes Highway, Toorloo Arm, *D.E. Albrecht* 2276 (CBG, PERTH); 2 mi [3.2 km] NNE. of Swan Reach on Bruthen Road, *A.C. Beauglehole* 37683 (MEL); Toorloo Arm Reserve, Princes Highway, *A.C. Beauglehole* 37851 (MEL); Cultivated, Buffalo Creek near Myrtleford, *F.E. Bienvendu* 0623 (PERTH); Tambo Upper road, *L.A. Fell* 3149 (MEL); Cultivated, Melbourne Botanic Gardens, 10 Jan. 1986, *J. Kenrick* s.n. (PERTH 00512044); Cultivated, near Baileau Library, Melbourne University, 7 Jan. 1984, *J. Kenrick* s.n. (PERTH 00721689); Buchan River, Mar. 1854, *F. Mueller* s.n. (MEL 615167); Buchan, about 1939, *F. Robins* s.n. (MEL 522743); Murrindal, *N.A. Wakefield* 4103 (MEL); Buchan, 11 Nov. 1964, *J.H. Willis* s.n. (MEL 502498); On rocks at the Buchan River, *anonymous* (MEL 61514); Buchan River, *anonymous* (MEL 615165); Tambo River, *anonymous* (MEL 615166).

DISTRIBUTION:

Restricted to the Lakes Entrance–Buchan district in eastern Victoria where it is known only from the Swan Reach–Tambo Upper area and Lake Tyers north to the Murrindal area.

ECOLOGY:

Key associates of the Buchan populations include *Eucalyptus melliodora* Cunn. ex Schauer, *Acacia falciformis* DC. and *Themeda triandra* Forssk., forming a grassy woodland. By contrast, the Toorloo Arm population is associated with *Eucalyptus baueriana* Schauer and *E. globulus* ssp. *pseudoglobulus* (Naudin ex Maiden) Kirkpatr. open forest with a shrubby understorey dominated by *Pomaderris oraria* sens. lat.

The population at Toorloo Arm grows on clay over fossiliferous limestone. It appears that the distribution of this species is strictly associated with limestone geology.

CONSERVATION STATUS:

Populations of this species have been fragmented and depleted historically by land clearance for settlement and agriculture. Remnant populations are currently threatened by further land clearing, especially on private land, and particularly by roadworks.

Since 1985 there have been major road widening operations with local realignments north from Buchan along the Wulgulmerang–Buchan road, to about half-way between Buchan and Murrindal. These have significantly reduced the populations in the roadside reserves, which are already remnants adjacent to agricultural land. The roadworks have extended as far north as all the known roadside populations of the species.

In the vicinity of the Princes Highway crossing over Toorloo Arm, within the Lake Tyers Forest Park, there is preserved a significant population containing a number of mature, 10–15 m tall specimens. However, several outstanding individuals on the east side of the Arm, overlooking the Princes Highway, have been lost recently through major road reconstruction works at the crossing.

FLOWERING AND FRUITING PERIOD:

Flowering commences in early November but its termination is not known; immature legumes (resulting from the previous flowering season) are often present with flowers in November. Legumes with mature seeds have been collected in early January.

AFFINITIES:

On account of its globular flower-heads and 1-nerved phyllodes *A. caerulescens* is placed in *Acacia* section *Phyllodineae* DC. The species was included by Court (1973, page 224) and Costermans (1981, page 318) as a variant of *A. obliquinervia*. The two species have glabrous, pruinose branchlets and similar phyllode, inflorescence and

carpological features. *Acacia obliquinervia* is most readily distinguished from *A. caerulescens* by its grey-green to glaucescent phyllodes which are often longer (5–17 cm long) and which possess a gland (0–12 mm above pulvinus) that does not have an associated fine oblique nerve extending to the pulvinus. Also, *A. obliquinervia* has thicker, shorter peduncles (1.5–5 mm long) and often oblongoid flower-head buds. *obliquinervia* is widespread in Victoria and New South Wales where it occurs in ranges between 500 m and 1700 m, especially in montane forests (Costermans 1981). The new species occurs at lower elevations on limestone soils and has a very restricted geographic range; it is not known to be sympatric with *A. obliquinervia*.

CULTIVATION:

According to Elliot and Jones (1982, p. 132) this very ornamental species will grow in a wide range of soils, is best suited to partial or full sun and withstands frosts and extended dry periods. It is ideal for gardens and roadsides, windbreaks and shelter planting. It is very attractive on account of its blue foliage and bright, lemon yellow heads.

ETYMOLOGY:

The specific epithet refers to the characteristic blue foliage.

COMMON NAME:

Buchan Blue or Buchan Blue Wattle.

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